



The current or last trend is dynamic. That means that its best-fit curve is recalculated as each data element is added. Once it is determined that a data element no longer belongs to the current trend, it is assigned to a new trend, the old trend then is fixed, and the new trend becomes the current trend.

Trend Determination Parameters

Trend determination parameters are the parameters that a user can feed into the algorithm that will determine the actual trends that are fit to the data. Changing the trend determination parameters will change the length, type, and character of the trends that are fit to the data. The various candidate trends may then be further analyzed according to trend attributes to determine which of the trends provides the best fit for the data for a desired application.

The specification describes several general trend determination parameters including:

- The first window size. This specifies the minimum number of adjacent points from the time series to be used to generate trends ($m_1, M_1, \Delta X_1, M_{Min}$).

- The second window size. This specifies the number of adjacent data points from the time series at the end of the trend to use in calculating a standard deviation of the data values around the trend (m_2 M_2 , ΔX_2).
- The standard deviation limit. This controls how far a data value can deviate from the trend to indicate that a new trend is starting (L_s , L_F).
- The number of times the deviations exceed the standard deviation limit to specify a new trend (L_N). A new trend can be started once the number of deviations exceeds some threshold (L_s).
- A new trend can be started when a correlation limit is breached. The correlation coefficient is calculated between the trend and the data values that make up the trend. If the correlation coefficient falls below a certain value (L_C) the trend can change.

Independent Claim 1 has been amended to include

“selecting a plurality of sets of trend determination parameters for the time series, each set of trend determination parameters comprising at least one window size, such that the window size defines a number of adjacent data elements from the time series to be used to generate trends”

...

evaluating the trend attributes for each member;

selecting at least one set of trends; and

outputting the set of trends ~~and trend attributes~~.

Independent Claim 26 has been amended to include

processing means for generating a plurality of sets of trend determination parameters for the time series by specifying a range of values for each of a plurality of trend determination parameters, the range of values comprising at least one window size,

such that the window size defines a number of adjacent data elements from the time series to be used to generate trends,

3. Applicant believes that all claims are now in condition for allowance.

Thank you for your continued assistance in this application.

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Respectfully submitted

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